

Norwegian Farms Poison the Wild Run:

BC's salmon stocks plunge; sea lice, salmon farms to blame

by Kim Petersen

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In the late 1980s, as Norway's Consul General in Vancouver was paving the way for Norwegian salmon farming operations in BC, Norway's former Prime Minister Gro Harlem headed the United Nations commission that produced the 1987 report, "Our Common Future," popularizing the concept of sustainable development.

In 2002, the spawning run of pink salmon in the Broughton Archipelago off northeast Vancouver Island decreased from 3.6 million to 147,000—four per cent of its population the year before. Biologists pointed to sea lice from salmon farms as the culprit. Juvenile salmon, called smolts, leave the rivers where they are born and are forced to run a gauntlet of salmon farms once they reach the archipelago, where they are exposed to high numbers of sea lice.

"Everywhere there are salmon farms and wild salmon, the wild salmon are eaten to death by sea lice," said Alexandra Morton, following the pink salmon collapse. Morton is a biologist and founder of the Raincoast Research Society which studies ecosystems and aquatic life on the BC coast. Last summer, the Department of Fisheries and Oceans Canada (DFO) forecast over 10 million sockeye salmon spawners would return to Sto:lo (Fraser River). Fewer than 10 per cent returned. Morton again implicated sea lice from salmon farms in the Broughton Archipelago as the cause of the 90 per cent collapse in sockeye spawners.

Sockeye runs elsewhere did comparably well, Morton noted, such as in N'ch-iwana (Columbia River), Somass River and Heydon Creek—the latter situated north of the Campbell River fish farm cluster.

Morton sees a bigger threat to wild salmon than sea lice. "I know sea lice are on the Fraser sockeye—I first found this in 2005—but I think the issue is farm disease in this case."

"The biggest threat is the virus ISA [Infectious Salmon Anaemia]," said Morton, "but sea lice are a problem enough that they [the sea lice] can destroy [wild salmon]."

Salmon in Chile, Norway, Scotland and New Brunswick have all suffered ISA outbreaks.

"What Alexandra means is that ISA is a serious imminent threat because wild Pacific salmon may not be immune to strains of ISA present in farm salmon eggs imported from Atlantic waters," geophysist Dr. Neil Frazer told The Dominion.

"If a wild population suffers a very large decline, recovery is uncertain because the ecological niche of the devastated species may be filled by other species," he said.

A myriad of factors impact the viability of wild salmon in BC: clearcut logging, global warming, agricultural runoff and dam construction. According to the BC Salmon Farmers Association, salmon farming began in BC in the early 1970s. In 1984, it was introduced into the seascape of Broughton Archipelago. The Broughton Archipelago now supports 29 salmon-farming operations, BC's highest concentration of salmon farms.

In their 2006 book, *An Upstream Battle*, Karl K. English, Glova J. Gordon, and Anita C. Blakely reported a 70-93 per cent decline in salmon stocks in 10 areas in BC since the early 1990s.

Wild salmon advocacy circles have recently begun to pressure Norway—where multi-national salmon-farming headquarters of the likes of Marine Harvest, Cremaq and Grieg Seafood own 92 per cent of BC's salmon farms.

"Norway is the key to solving the salmon-farming problem and [is] still home to healthy wild Atlantic salmon populations," said Don Staniford of Pure Salmon Campaign, a global salmon advocacy project. "There is still time to save Atlantic wild salmon by moving the farms out of the path of migrating smolts. And in the Pacific, the solution is equally as simple."

Even Norway's richest man, John Fredriksen, an avid fisherman and majority owner of the world's

largest salmon-farming corporation, Marine Harvest, was alarmed: "I am worried for the wild salmon's future. Fish farming should not be allowed in fjords with salmon rivers," said Fredricksen in 2007 to Norway's *Altaposten*.

Staniford, who was in Norway last May, reported sympathy among Norwegians, whose own wild salmon are plagued by infestations of sea lice, and who support an end to open-water net salmon farming.

"Norwegians are now rising up and standing up for wild salmon," said Staniford. "Over the last year there has been a sea change in public perception of the salmon farming industry in Norway." Staniford sees Norwegian fishermen, river owners, politicians, environmentalists and citizens as increasingly critical of the salmon-farming industry plagued with sea lice and escapes of farmed salmon.

The Vancouver Olympics brought another opportunity to pressure the Norwegian government: Norway's King Harald V was in attendance at the Games. On a sunny Saturday, February 20, the eighth day of the 2010 Winter Olympics, the Union of BC Indian Chiefs (UBCIC) and Wild Salmon Circle held a rally in Vancouver's Vanier Park. Although Harold V was not among them, about 200 people turned out to hear featured speakers Morton, Staniford, ex-DFO biologist Otto Langer, and Kwicksutaineuk Ah-kwa-mish First Nation Chief Bob Chamberlin.

"Considering the Olympics were on—a big distraction and the reason we held the rally now—there was a great turnout," said Maria Morlin, biology professor and emcee at the rally. "I hope our message gets through to the Norwegian government loud and clear: don't mess up our waters; you have enough problems with your own Atlantic salmon escapees and wild salmon collapses."

"We have a long tradition of salmon in our culture, and to be unable to pass this tradition to our children is unthinkable," said hereditary Chief Chamberlin, emphasizing the issue was not a short-term one.

Langer argued that moving the salmon to closed-containment was an unsatisfactory solution because of negative protein production. Langer said feeding the salmon would still require 5 to 10 kilograms of other fish to produce one kilogram of food pellets. Farming carnivorous fish in open net-cages or in closed containment facilities, he held, is simply not sustainable.

For those proud of the Brundtland Commission's work on sustainability, the unsustainability of Norwegian-owned salmon farms is a stark contradiction.

"I am not talking about all aquaculture. I am referring specifically to the massive scale Norwegian feedlots," said Morton on March 15.

"There are Canadian fish farmers who know how to use tanks on land who are not impacting our wild salmon and herring. This is about saving wild salmon and all of us who depend on them."

Morton announced Get Out Migration which will promote the cause of wild salmon through a walk, open to all the public, from Sointula to Victoria.

"We hold salmon as sacred because they so generously feed our world," said Morton. "They built the soil of this province with their flesh, they grow our children, they feed the trees that make the oxygen we breath, they are food security in a world losing ability to even pollinate flowers." Two decades have passed, and the salmon-farming industry, dominated by Norwegian multinationals, is charged with imperilling ecosystems worldwide, including in Norway.

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